

GEOS 24705 / ENST 24705

Problem set #13

Due: Th. May 10

### **Problem 1: Evaluating wind projects**

Part of the goal of this class is to give you the tools to evaluate / analyze actual real-life writings on energy: articles or proposed policies or business plans. By this time in class you should be ready to start doing that. This problem set is intended to help you get some practice in the kind of close reading / analysis you'll have to do for your projects.

The contentious Cape Wind project off the coast of Cape Cod has finally gotten approval, so you can take a quick look at that project:

The official Cape Wind site is here: <http://www.capewind.org/index.php>

And an article on their rate agreement with local utilities is here:

<http://www.boston.com/Boston/businessupdates/2012/03/nstar-pay-double-the-cost-conventional-energy-for-cape-wind-power/2KJm2MV1bpfG8UzKFC8OCK/index.html>

There is some info on site characteristics here:

[http://www.capecodtoday.com/news/Op-Ed/2007/03/22/any\\_good\\_alternatives\\_for\\_cape\\_wind](http://www.capecodtoday.com/news/Op-Ed/2007/03/22/any_good_alternatives_for_cape_wind)

- A. Before looking at the proposal, write down all the metrics you'd want to know to evaluate any wind project – the basic information you'd need to know to make a judgment of whether it seemed sensible, everything you need to do a reality check. Also write down your estimates for what values of those metrics you think a normal wind farm should have. (It's OK at this point to guess a bit, but practice constructing your expectations before you do your reading).
- B. Now, for all the metrics you listed, pick out those numbers from the articles. Decide whether they are reasonable or not and explain / comment.
- C. Combine the information about the wind farm with the information about rates to come up with the total \$ amount of electricity sales from the wind farm per year, and total over its lifetime.
- D. Compare this number to assumed savings claimed on 1) The "Supplying electricity" pages of the Cape Wind site", 2) the "News" pages of the Cape Wind site, and 3) any other news articles you Google.

Remember this is a Thursday problem set – don't spend many hours. Turn it in before class and we'll discuss in class.